

ABSTRACT

A multimode-based phase modulating apparatus capable of reducing the degradation of modulation precision and suppressing the unnecessary power consumption. The phase modulating apparatus has a switch (9) for switching the modulation modes of a PLL circuit (15) between a single-point modulation and a double-point modulation. In a case of a narrow modulation bandwidth such as in a GSM mode, the switch (9) is turned off to cease a second digital baseband signal (S2), thereby causing the PLL circuit (15) to perform the single-point modulation in which only a first digital baseband signal (S1) from a frequency division rate generating part (10) is used for the modulation. Contrarily, in a case of a wide modulation bandwidth such as in a UMTS mode, the switch (9) is turned on, thereby performing the double-point modulation using both the first digital baseband signal (S1) and the second digital baseband signal (S2).